ABSTRACT OF THE DISCLOSURE

The present invention provides a rubber composition and a pneumatic tire using the rubber composition. The rubber composition comprises a diene base rubber comprising at least 15 % by weight of a polybutadiene rubber, silica in an amount of 10 to 80 parts by weight per 100 parts by weight of the diene base rubber and, in an amount of 1 to 20 % by weight of the amount of silica, a specific silane coupling agent, i.e., a bis (alkoxysilylalkyl) polysulfide having a polysulfide chain in which the distribution of sulfur is specified. After curing, the cured rubber composition includes closed cells. Therefore, the rubber composition has a good processability at the time of manufacturing of a tire and a pneumatic tire using the same has excellent snow/ice grip performance and abrasion resistance.